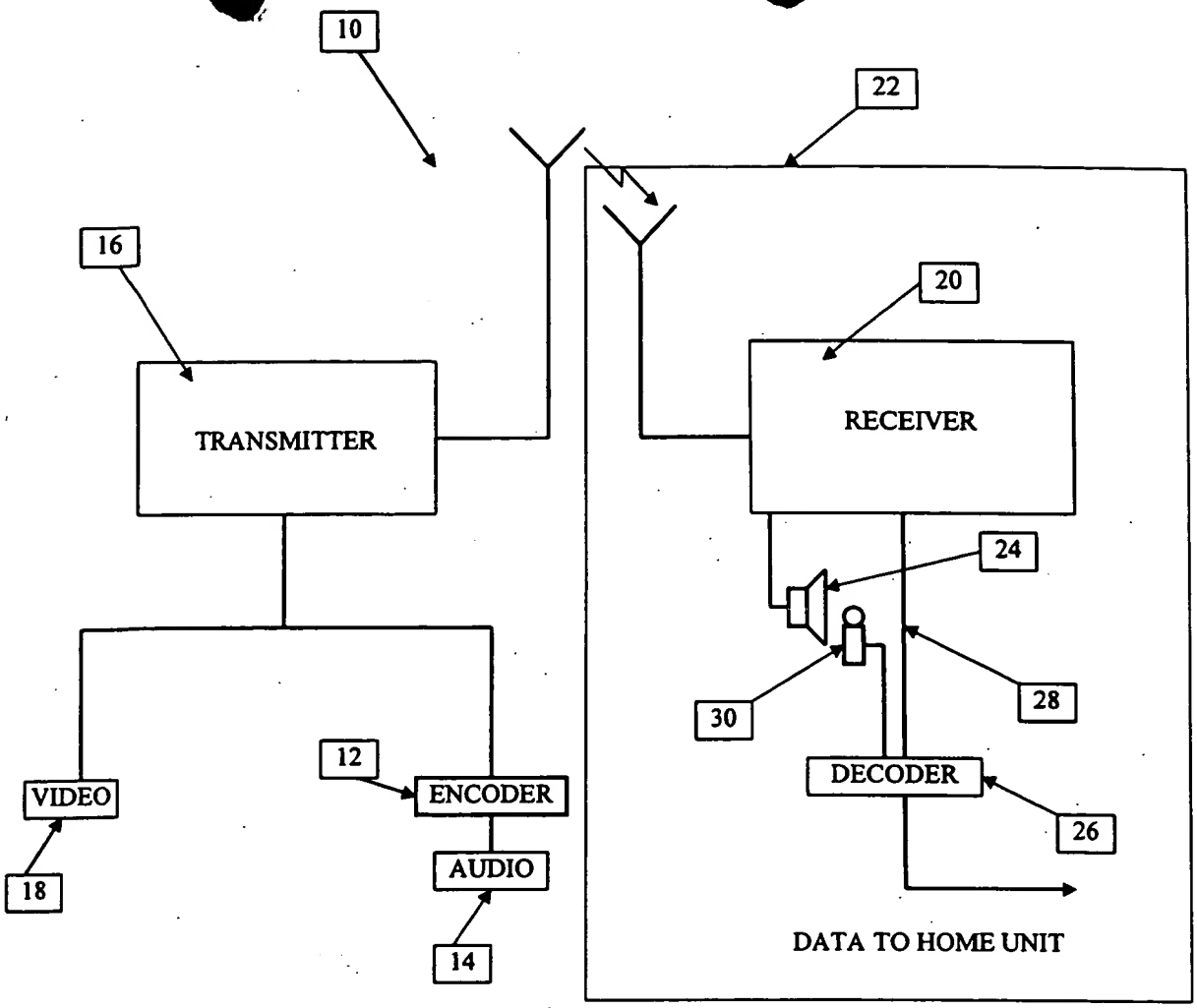
10
22
16
20
TRANSMITTER
RECEIVER
24
30
28
12
VIDEO
ENCODER
DECODER
26
AUDIO
18
14
DATA TO HOME UNIT

Figure 1

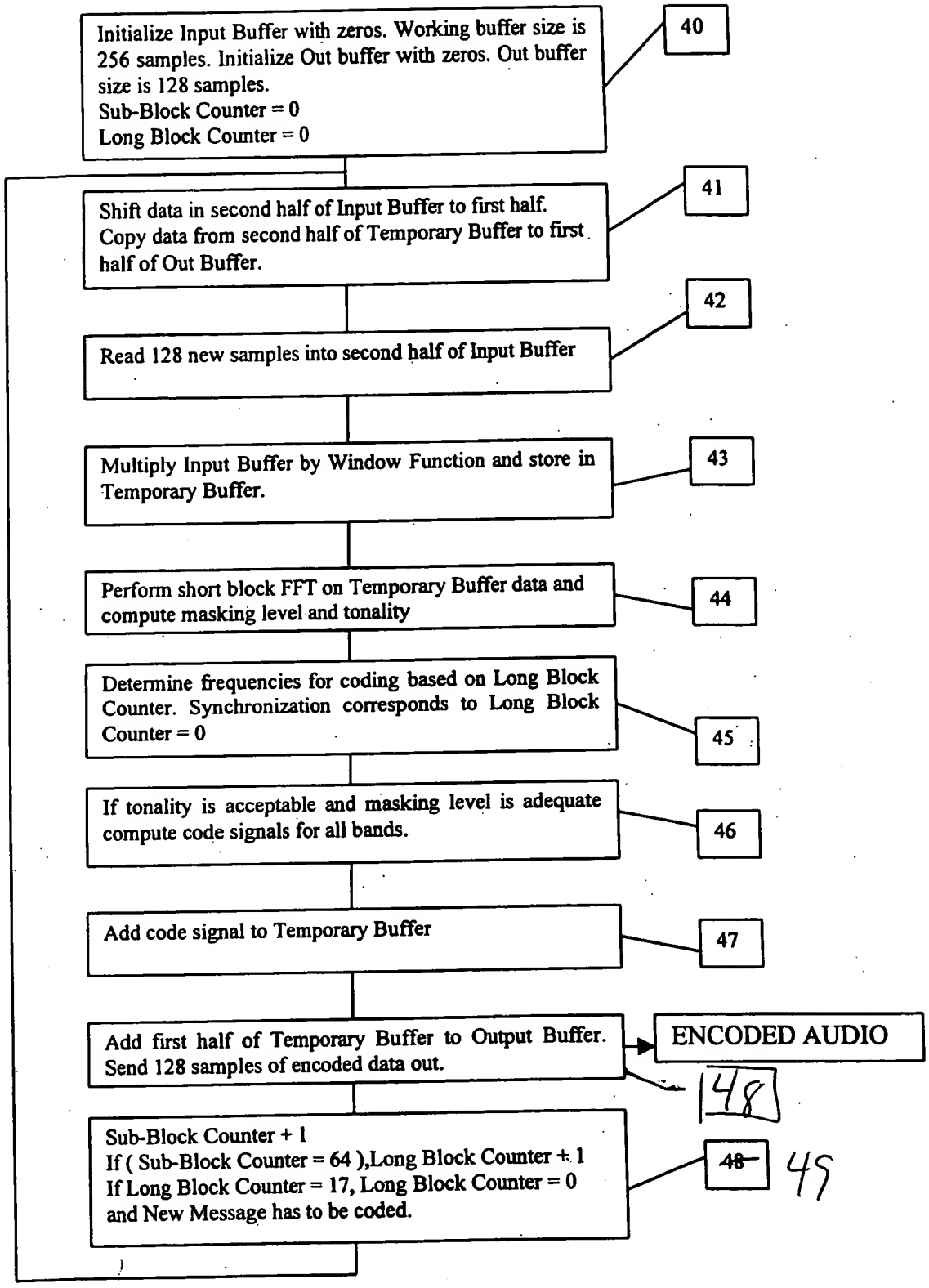
Initialize Input Buffer with zeros. Working buffer size is 256 samples. Initialize Out buffer with zeros. Out buffer size is 128 samples.
Sub-Block Counter = 0
Long Block Counter = 0
40
Shift data in second half of Input Buffer to first half. Copy data from second half of Temporary Buffer to first half of Out Buffer.
41
Read 128 new samples into second half of Input Buffer
42
Multiply Input Buffer by Window Function and store in Temporary Buffer.
43
Perform short block FFT on Temporary Buffer data and compute masking level and tonality
44
Determine frequencies for coding based on Long Block Counter. Synchronization corresponds to Long Block Counter = 0
45
If tonality is acceptable and masking level is adequate compute code signals for all bands.
46
Add code signal to Temporary Buffer
47
Add first half of Temporary Buffer to Output Buffer. Send 128 samples of encoded data out.
ENCODED AUDIO
48
Sub-Block Counter + 1
If (Sub-Block Counter = 64),Long Block Counter + 1
If Long Block Counter = 17, Long Block Counter = 0
and New Message has to be coded.
48
49

Figure 2

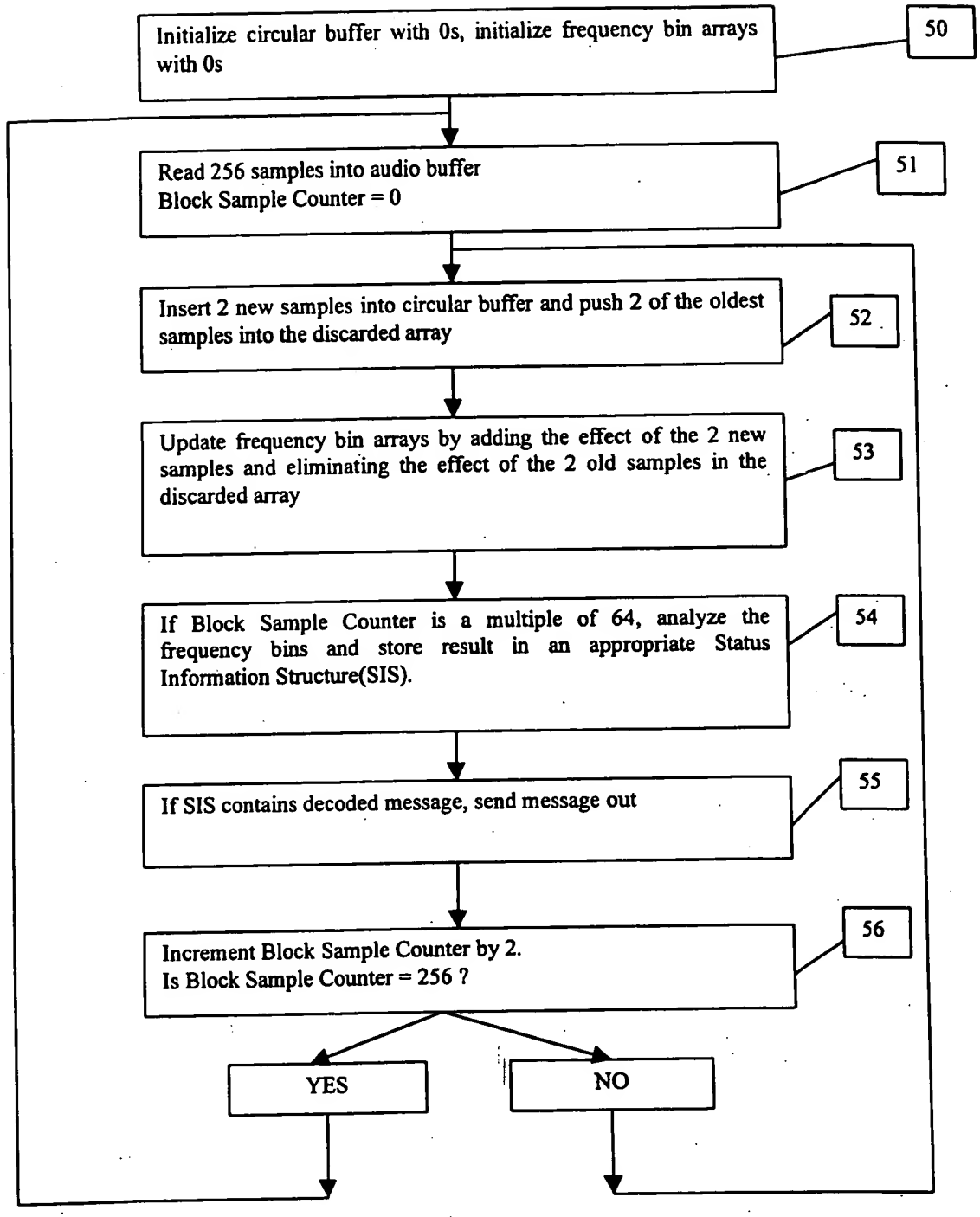
Initialize circular buffer with 0s, initialize frequency bin arrays with 0s
50
Read 256 samples into audio buffer
Block Sample Counter = 0
51
Insert 2 new samples into circular buffer and push 2 of the oldest samples into the discarded array
52
Update frequency bin arrays by adding the effect of the 2 new samples and eliminating the effect of the 2 old samples in the discarded array
53
If Block Sample Counter is a multiple of 64, analyze the frequency bins and store result in an appropriate Status Information Structure(SIS).
54
If SIS contains decoded message, send message out
55
Increment Block Sample Counter by 2.
Is Block Sample Counter = 256 ?
56
YES
NO

Figure 3